

REMARKS

This application has been carefully reviewed in light of the Office Action dated April 22, 2004 (Paper No. 7). Claims 1 to 18 and 23 to 29 are presented for examination, of which Claim 29 has been newly-added. Claims 1, 11, 12, 13, 14, 15, 23, 25 and 29 are the independent herein. Reconsideration and further examination are respectfully requested.

Claims 1 to 18 and 23 to 28 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,051,736 (Bennett). Reconsideration and withdrawal of the rejections are respectfully requested.

The present invention relates to the input of position coordinates using a coordinate plate. The present invention's coordinate plate has a plurality of pieces of coded coordinate information each corresponding to an X-coordinate value and has a plurality of pieces of coded coordinate information each corresponding to a Y-coordinate value, with each of the pieces of coded coordinate information composed of dots. One feature of the present invention lies in the arrangement of the pieces of coded coordinate information on the coordinate plate in which they are formed at predetermined intervals which are wider than intervals between dots in a piece of the coded coordinate information. An example of such an arrangement can be seen in Fig. 3 of the specification. Thus, by spacing the pieces of coded coordinate information wider in relation to the spacing of the dots making up the pieces of the coded coordinate information, the presence of the coded coordinate information becomes less conspicuous to a user.

With specific reference to the claims, independent Claim 1 recites a coordinate input apparatus comprising a coordinate plate having a plurality of pieces of coded coordinate information composed of dots, each corresponding to an X-coordinate value, and having a plurality of pieces of coded coordinate information composed of dots, each corresponding to a Y-coordinate value. The plurality of pieces of coded coordinate information are formed at predetermined intervals on the coordinate plate, wherein the intervals between the pieces of coded coordinate information are wider than intervals between the dots in a piece of the coded coordinate information. The apparatus also comprises input-indicating means for indicating a position of the coordinate plate to be input and for detecting the coordinate information in the vicinity of the position. The apparatus further comprises processing means for determining X-coordinate values and Y-coordinate values from the coordinate information detected by the input-indicating means and for determining the coordinate of the input position on the basis of the X-coordinate values and Y-coordinate values.

Independent Claims 11 to 15, 23 and 25 correspond generally to independent Claim 1, in that each of these claims also recite a coordinate plate having the features described above.

The applied art is not seen to disclose or to suggest the features of independent Claims 1, 11 to 15, 23 and 25, and in particular, is not seen to disclose or to suggest at least the feature of a coordinate plate having a plurality of pieces of coded coordinate information composed of dots, each corresponding to an X-coordinate value, and having a plurality of pieces of coded coordinate information composed of dots, each

corresponding to a Y-coordinate value, wherein the plurality of pieces of coded coordinate information are formed at predetermined intervals on the coordinate plate, and wherein the intervals between the pieces of coded coordinate information are wider than intervals between the dots in a piece of the coded coordinate information.

Bennett is seen to disclose an optical stylus and passive digitizing tablet data input system in which the tablet is made up of a matrix of squares called Tablet Address Cells (TACs) which contain digitally encoded X, Y position information (column 9, lines 53-56; Fig. 6). As shown in Fig. 7 of Bennett, the TAC is divided into a 7x7 array of 49 dot positions. In each TAC, the four corner dot positions, and the space between corner dots of adjacent TACs, are filled to provide large corner markers. The larger dots of Fig. 6 are seen to correspond to the corner markers of the TACs (column 9, lines 62-67; Fig. 6). The center dot of the TAC is not used, while the remaining 44 dots are interpreted in four groups of 11 dots each. The quadrants are used to code the high and low order halves of the X and Y TAC addresses (column 10, lines 15-33). The binary codes used for the X, Y addresses are codes that have exactly or approximately half zeros and half ones. This causes all TACs to pass the same amount of visible light (column 9, line 66 - column 10, line 3).

The Office Action contends that Bennett's TACs correspond to the present inventions pieces of coded coordinate information. However, Bennett's TACs are not seen to teach the arrangement as recited in amended independent Claims 1, 11 to 15, 23 and 25. As can be seen in Fig. 6 of Bennett, the large corner dots for each TAC are seen to be evenly and continuously spaced across the tablet. In addition, as discussed above, the

corner markers are made large by filling in the space between two corner dots of adjacent TACs. As such, Bennett is not seen to teach that the interval between the TACs is greater than intervals between dots within a TAC. Rather, since the large corner dots of Fig. 6 are shared by multiple adjacent TACs, there is not seen to be any interval between Bennett's TACs.

Accordingly, independent Claims 1, 11 to 15, 23 and 25 are believed to allowable over the applied reference.

According to another aspect of the present invention, newly-added independent Claim 29 recites a coordinate input-output unit of a coordinate input apparatus comprising a coordinate plate having a plurality of pieces of coded coordinate information composed of dots, and a display apparatus, having a plurality of display pixels, integrated with the coordinate plate. The coded coordinate information is recorded on the coordinate plate so as to be positionally related to the plurality of display pixels. In addition, the coded coordinate information is smaller than a size of the display pixels.

The art of record is not seen to disclose the above-mentioned features, and in particular, is not seen to disclose or to suggest coded coordinate information which is smaller than a size of the display pixels to which the coded coordinate information is positionally related.

Bennet is not seen to disclose or suggest the size of the TACs with reference to any display pixels. In the rejection of Claim 23, the Office Action contends that Fig. 14 and columns 13, lines 59-63 of Bennett discuss pixels. However, these sections of Bennett are not seen to discuss display pixels as recited by Claim 29, but are rather seen to discuss

the pixel code bits (PCBs) contained within a TAC that represent 1's and 0's (see column 5, lines 63-68; Fig. 4). As such, Bennett is not seen to discuss display pixels and therefore, Bennett is not seen in any way to disclose or to suggest that it's TACs are smaller in size than display pixels to which they are positionally related.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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